STATE OF CALIFORNIA-BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, Governor

DEPARTMENT OF TRANSPORTATION
ESC/OE MS #43
1737 30TH. Street 2ND. Floor
SACRAMENTO, CA 945816

July 30, 1999

04-SF-80-5.5/7.8
04-0435U4

Addendum No. 3

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in THE CITY AND COUNTY OF SAN FRANCISCO AT SAN FRANCISCO-OAKLAND BAY BRIDGE FROM 0.2 MILE WEST OF SAN FRANCISCO ANCHORAGE TO EAST END OF YERBA BUENA TUNNEL.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on August 24, 1999.

This addendum is being issued to revise the Project Plans and the Notice to Contractors and Special Provisions.

Project Plan Sheets 102, 109, 205, 292, 365, 368, 375, 381, 414, 446, 627, 734, 739, 744, 750, 752, 753, 758, 760, 761, 766, 769, 771, 775, 776, 777, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 951, 952, 953, 954, 955 and 956 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

In the Notice to Contractors and Special Provisions and the Proposal and Contract, the date for the pre-award qualifications review meeting is revised to August 26, 1999 instead of the original date of August 12, 1999.

In the Special Provisions, Section 5-1.25, “Relations with California Regional Water Quality Control Board”, the fourth paragraph is deleted.

In the Special Provisions, Section 5-1.30, "Use of Existing Traveler Rails and Scaffolds", the fourth and fifth sentences of the second paragraph are revised as follows:

> "Information for the existing design capacities for the travelers, traveler rails and their supports is available for inspection at the office of the Toll Bridge Duty Senior at 111 Grand Avenue, Oakland, CA 94612, telephone number (510) 286-5549, email duty_senior_tollbridge_district04@dot.ca.gov."

In the Special Provisions, Section 10-1.22, "Existing Highway Facilities", is revised as attached.

In the Special Provisions, Section 10-1.34, "Steel Structures," subsection "Fabrication", the ninth, tenth and eleventh paragraphs are revised as follows:

"Holes for bolted connections in structural steel joints consisting of new and existing structural steel or existing structural steel may consist of both sub-punched or sub-drilled holes and holes punched or drilled full size. These holes shall be approved by the Engineer and shall conform to these special provisions.

The finished holes in structural steel plates nearest to the nut or bolt head shall not be more than 1/16 inch larger than the nominal diameter of the bolt.

When the holes in the other existing structural steel plates are misaligned greater than 1/16 inch, the holes in these steel plates may be reamed to slots. These slots shall conform to the provisions for short-slotted holes as defined in "Specification for Structural Joints Using ASTM A325 or A490 Bolts" (RCSC Specification) approved by the Research Council on Structural Connections. The axis of the slot shall be normal to the direction of the load."

In the Special Provisions, Section 10-1.34A, "Prestressing Structural Steel," is added as attached.

In the Special Provisions, Section 10-1.35, "Remove and Erect Structural Steel", subsection "Structural Steel Erection and Removal Drawings", the ninth paragraph is revised as follows:

"Two wind monitoring systems shall be used during all structural steel erection or removal operations. The wind monitoring equipment shall be delivered to the Engineer 2 months prior to any structural steel erection or removal. The wind monitoring equipment will be installed by the State. The Contractor shall provide AC power and telephone lines to the base of Towers 3 and 5 for the wind monitoring equipment. The exact location of the equipment will be determined by the Engineer."

In the Special Provisions, Section 10-1.35, "Remove and Erect Structural Steel", subsection "Payment", is revised as follows:

"**PAYMENT**.--Full compensation for the structural steel erection and removal plan, including temporary structural steel and fasteners shown on the plans, additional temporary bracing systems, protective barriers, wind monitoring system, hoisting systems and the Contractor's registered engineer, shall be considered as included in the contract price paid per pound for erect structural steel, bridge and no separate payment will be allowed therefor."

In the Special Provisions, Section 10-1.40, "Miscellaneous Metal (Bridge)", the following paragraph is added after the sixth paragraph:

"Nylon insert locknuts conform to the requirements of ASTM Designation: A 563, Grade DH and ASME 18.2.6, except that the thickness, H, shall be greater than that specified in ASME 18.2.6 to accommodate the nylon insert. The nylon insert locknuts shall be mechanically zinc-coated conforming to the requirement of ASTM Designation: B 695, Class 50. The nuts shall maintain complete locking effectiveness at temperatures up to 120°C. Thread locking system shall not be used."

In the Special Provisions, Section 10-3.11, "Luminaire Foundation and Pedestal," the following paragraphs are added after the first paragraph:

"All plates, bolts, and luminaire foundation steel shall be measured and paid for as structural steel..

The contract price paid per pound for structural steel shall include full compensation for furnishing all labor, materials, transportation, tools, equipment and incidentals, and for doing all the work involved in the furnishing and installing of the plates, bolts, and luminaire foundation steel, complete in place, as shown on the plans, and as specified in the Standard Specifications and these special provisions."

In the Proposal and Contract, the Engineer’s Estimate Item s 21 and 75 are revised as attached.

To Proposal and Contract book holders:

- REPLACE THE ENTIRE PAGES 4 AND 6 OF THE ENGINEER'S ESTIMATE IN THE PROPOSAL WITH THE ATTACHED REVISED PAGES 4 AND 6 OF THE ENGINEER'S ESTIMATE. THE REVISED ENGINEER'S ESTIMATE IS TO BE USED IN THE BID.

- ATTACHED IS A COPY OF THE MATERIAL INFORMATION, "SURVEY OF EXISTING PAINT THICKNESS", DATED JUNE 18, 1999.

- INDICATE RECEIPT OF THIS ADDENDUM BY FILLING IN THE NUMBER OF THIS ADDENDUM IN THE SPACE PROVIDED ON THE SIGNATURE PAGE OF THE PROPOSAL.

- Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

- Inform subcontractors and suppliers as necessary.

This office is sending this addendum by UPS overnight mail to Proposal and Contract book holders to ensure that each receives it.

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

NICK YAMBAO, Chief
Plans, Specifications &
Estimates Branch
Office of Office Engineer

Attachments

10-1.22 EXISTING HIGHWAY FACILITIES

The work performed in connection with various existing highway facilities shall conform to the provisions in Section 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions.

The Contractor shall provide and install temporary deck bridging during the tower lower deck strut modifications while the Pacific Bell Line is being relocated. Temporary deck bridging shall conform to the requirements in "Temporary Deck Bridging" of these special provisions.

At the Contractor's option, expansion gratings removed during the work shift shall be restored to their original location at the end of each workshift or temporary deck bridging shall be provided and installed to the bridge deck gaps. Temporary deck bridging shall conform to the requirements in "Temporary Deck Bridging" of these special provisions.

Difficult construction operations are anticipated due to restricted access to areas of the existing structure. Construction operations include, but are not limited to, rivet removal, steel erection, bolt installation, welding, spot blast cleaning and painting.

Plans of the existing bridge, including electrical work, scaffolding and travelers may be requested by fax from the Toll Bridge Retrofit Program Duty Senior at District 04 Office, 111 Grand Avenue, Oakland, California 94612, Fax (510) 286-4563.

Plans of the existing bridge, pertaining to the work required by this contract and available to the Contractor, are reproductions of the original contract plans and working drawings and do not necessarily show normal construction tolerances and variances. Where dimensions of new construction, required by this contract, are dependent on the dimensions of existing bridges, the Contractor shall verify field dimensions for all members prior to submitting working drawings and ordering, fabricating or installing material. The Contractor shall be responsible for adjusting dimensions of the work to fit existing conditions.

The Contractor shall certify in writing that field dimensions have been verified and shall include the certification with the working drawing submittal. Full compensation for conforming to the above requirements shall be considered as included in the contract prices paid for the various contract items of work and no additional compensation will be allowed therefor.

Attention is directed to Section 7-1.06, "Safety and Health Provisions," of the Standard Specifications. Work practices and worker health and safety shall conform to the Cal/OSHA Safety Orders Title 8, of the California Code of Regulations including Section 5158, "Other Confined Space Operations."

The existing paint systems on Bridge Number 34-003 consist of lead, chromium and zinc. Any work that disturbs the existing paint system will expose workers to health hazards and will (1) produce debris containing heavy metal in amounts that exceed the thresholds established in Titles 8 and 22 of the California Code of Regulations or (2) produce toxic fumes when heated.

Existing debris produced from previous paint removal operations, deterioration of the existing paint system and road grime is present on structural members and appurtenances of the bridge. The existing debris contains heavy metal in amounts that exceed the thresholds established in Titles 8 and 22 of the California Code of Regulations. Any work that disturbs the existing debris will expose workers to health hazards.

Two reports, entitled "San Francisco-Oakland Bay Bridge West Tower Debris Investigation-Summary" and "San Francisco-Oakland Bay Bridge West Tower Debris Investigation" respectively, are included in the "Materials Information" available to the Contractor as provided for in Section 2-1.03 "Examination of Plans, Specifications, Contract, and Site of Work," of the Standard Specifications.

Debris, consisting of (1) debris produced when the existing paint system is disturbed, (2) existing debris disturbed by the Contractor's operations, or (3)

mixture of existing debris and debris produced when the existing paint system is disturbed, shall be contained as specified herein.

DEBRIS CONTAINMENT AND COLLECTION PROGRAM.—Prior to starting work, the Contractor shall submit to the Engineer a debris containment and collection program in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. The program shall identify materials, equipment and methods to be used and shall include working drawings of any containment system, loads applied to the bridge by any containment structure, and provisions for ventilation and air movement for visibility and worker safety.

At the option of the Contractor, existing debris may be removed from the work surfaces prior to starting work that may disturb the existing debris. Methods of removal shall minimize heavy metal from becoming airborne. Compressed air or water shall not be used to remove existing debris without an approved debris containment and collection program.

If the measures being taken by the Contractor are inadequate to provide for the containment and collection of debris, the Engineer will direct the Contractor to revise the operations and the debris containment and collection program. The directions will be in writing and will specify the items of work for which the Contractor's debris containment and collection program are inadequate. No further work shall be performed on the items until the debris containment and collection programs are adequate and, if required, a revised program has been approved for the containment and collection of debris produced when the existing paint system is disturbed.

The Engineer will notify the Contractor of the approval or rejection of any submitted or revised debris containment and collection program within 2 weeks of submittal of the Contractor's program or revised program.

The State will not be liable to the Contractor for failure to approve all or any portion of an originally submitted or revised debris containment and collection program, nor for any delays to the work due to the Contractor's failure to submit acceptable programs.

SAFETY AND HEALTH PROVISIONS.—Attention is directed to Section 7-1.06, "Safety and Health Provisions," of the Standard Specifications. Work practices and worker health and safety shall conform to the Construction Safety Orders Title 8, of the California Code of Regulations including Section 1532.1, "Lead."

The Contractor shall furnish to the Engineer a written Code of Safe Practices, and have an Injury and Illness Prevention Program, and a Hazard Communication Program in accordance with the provisions of Construction Safety Orders 1509 and 1510.

Prior to starting work that disturbs the existing paint system, disturbs the existing debris, or combines the existing and produced debris and at such times when revisions to the program are required by Section 1532.1, "Lead," the Contractor shall submit the compliance programs required in subsection (e)(2), "Compliance Program," of Section 1532.1, "Lead," of the Construction Safety Orders to the Engineer in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. The compliance programs shall include the data specified in subsections (e)(2)(B) and (e)(2)(C) of Section 1532.1, "Lead." Approval of the compliance programs by the Engineer will not be required. The compliance programs shall be reviewed and signed by a Certified Industrial Hygienist (CIH) who is certified in comprehensive practice by the American Board of Industrial Hygiene (ABIH). Copies of all air monitoring or jobsite inspection reports made by or under the direction of the CIH in accordance with Section 1532.1, "Lead," shall be furnished to the Engineer within 10 days after date of monitoring or inspection.

The CIH shall not be employed or compensated by any subcontractor, or by other persons or entities hired by subcontractors, who will provide other services or material for the project. The CIH may be an employee of the Contractor.

DEBRIS HANDLING.—Temporary storage on the ground of the debris will not be permitted. Debris accumulated inside the containment system shall be removed before the end of each work shift. Debris shall be stored in approved leak proof containers and shall be handled in such a manner that no spillage will occur.

Disposal of debris shall be performed in accordance with all applicable Federal, State and Local hazardous waste laws. Laws that govern this work include:

1. Health and Safety Code, Division 20, Chapter 6.5 (California Hazardous Waste Control Act).
2. Title 22; California Code of Regulations, Chapter 30 (Minimum Standard for Management of Hazardous and Extremely Hazardous Materials).
3. Title 8, California Code of Regulations.

Except as otherwise provided below, debris shall be disposed of by the Contractor at an approved Class 1 disposal facility in accordance with the requirements of the disposal facility operator. The debris shall be hauled by a transporter currently registered with the California Department of Toxic Substances Control using correct manifesting procedures and vehicles displaying current certification of compliance. The Contractor shall make all arrangements with the operator of the disposal facility and perform any testing of the debris required by the operator.

At the option of the Contractor, the debris produced when the existing paint system is disturbed may be disposed of by the Contractor at a facility equipped to recycle the debris, subject to the following requirements:

Copper slag abrasive blended by the supplier with a calcium silicate compound shall be used for blast cleaning.

The debris produced when the existing paint system is disturbed shall be tested by the Contractor to confirm that the solubility of the heavy metals is below regulatory limits and that the debris may be transported to the recycling facility as a non-hazardous waste.

The Contractor shall make all arrangements with the operator of the recycling facility and perform any testing of the debris produced when the existing paint system is disturbed that is required by the operator.

WORK AREA MONITORING.—The Contractor shall perform work area monitoring of the ambient air and soil in and around the work area at the bridge site to verify the effectiveness of the containment system. The work area monitoring shall consist of collecting, analyzing and reporting of air and soil test results, and recommending any required corrective action when specified exposure levels are exceeded. The work area monitoring shall be carried out under the direction of a CIH. The samples shall be collected at locations designated by the Engineer.

Air samples shall be collected and analyzed in accordance with National Institute for Occupational Safety and Health (NIOSH) methods. Lead air samples shall be collected and analyzed in accordance with NIOSH Method 7082, with a limit of detection of at least 0.5 $\mu g/m^3$. Air samples for other metals shall be collected and analyzed in accordance with NIOSH Method 7300, with a limit of detection of at least one percent of the appropriate Permissible Exposure Limits (PELs) of California/Occupational Safety and Health Administration (Cal/OSHA). Alternative methods of sample collection and analysis, with equivalent limits of detection, may be used at the option of the Contractor.

The airborne metals exposure, outside either the containment system or work areas, shall not exceed the lower of either: (1) 10 percent of the Action Level specified for lead by Section 1532.1, "Lead," or (2) 10 percent of the appropriate PELs specified for other metals by Cal/OSHA.

The air samples shall be collected once prior to beginning of work that disturbs the existing paint system, disturbs the existing debris, or combines the existing and produced debris, and at least once per week during progress of this work. All air samples shall be analyzed within 48 hours at a facility accredited by the Environmental Lead Laboratory Accreditation Program of the American Industrial Hygiene Association (AIHA). When corrective action is recommended by the CIH, additional samples may be required by the Engineer to be taken, at the Contractor's expense.

Four soil samples each at Bents A and B, Pier W1 and Yerba Buena Island anchorage shall be collected prior to start of work, and four soil samples each at Bents A and B, Pier W1 and Yerba Buena Island anchorage shall be collected within 36 hours following completion of cleaning operations of existing structural steel. Where the cleaning operations extend over large areas of soil or many separate areas of soil at each bridge site, the samples shall be collected at various times during the contract, as determined by the Engineer. A soil sample shall consist of 5 plugs, each 3/4 inch diameter and 1/2 inch deep, taken at each corner and center of a one foot square area. Soil samples shall be analyzed for total lead, chromium and zinc in accordance with Method 3050 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846 published by the United States Environmental Protection Agency.

There shall be no increase in the concentrations of heavy metal in the soil in the area affected by the Contractor's operations.. When soil sampling, after completion of work that disturbs the existing paint system, disturbs the existing debris, or combines the existing and produced debris, shows an increase in the concentrations of heavy metal, the area affected shall be cleaned and resampled at the Contractor's expense until soil sampling and testing shows concentrations of heavy metal less than or equal to the concentrations collected prior to start of work.

In areas where there is no exposed soil, there shall be no visible increase in the concentrations of heavy metal on the area affected when the existing paint system is disturbed, the existing debris is disturbed, or the existing and produced debris have been combined. Any visible increase in the concentrations of heavy metal, after completion of work that disturbs the existing paint system, shall be removed at the Contractor's expense.

Air and soil sample laboratory analysis results, including results of additional samples taken after corrective action as recommended by the CIH, shall be submitted to the Engineer. The results shall be submitted both verbally within 48 hours after sampling and in writing with a copy to the Contractor, within 5 days after sampling. Sample analysis reports shall be prepared by the CIH as follows:

For both air and soil sample laboratory analysis results, the date and location of sample collection, sample number, contract number, bridge number,

full name of the structure as shown on the contract plans, and District-County-Route-Post mile will be required.

For air sample laboratory analysis results, the following will be required:

1. List of emission control measures in place when air samples were taken.
2. Air sample results shall be compared to the appropriate PELs.
3. Chain of custody forms.
4. Corrective action recommended by the CIH to ensure airborne metals exposure, outside either the containment system or work areas, is within specified limits.

For soil sample laboratory analysis results, the concentrations of heavy metal expressed as parts per million will be required.

CONTAINMENT SYSTEM.—The containment system shall consist of, at the option of the Contractor, (1) a ventilated containment structure, or (2) vacuum shrouded surface preparation equipment and drapes, tarps or other materials, or (3) equivalent containment system. The containment system shall contain all water, resulting debris, and visible dust produced when the existing paint system is disturbed, the existing debris when it is disturbed, and any mixture of the existing and produced debris.

The containment system shall provide the clearances specified under "Maintaining Traffic" of these special provisions, except that when no clearances are specified a vertical clearance of 15 feet and a horizontal clearance of 32 feet shall be provided for the passage of public traffic.

Falsework or supports for the ventilated containment structure shall not extend below the vertical clearance level nor to the ground line at any location within the roadbed.

The ventilated containment structure shall conform to the provisions for falsework in Section 51-1.06, "Falsework," of the Standard Specifications.

The minimum total design load of the ventilated containment structure shall consist of the sum of the dead and live vertical loads. Dead load shall consist of the actual weight of the ventilated containment structure. Live loads shall consist of a uniform load of not less than 45 pounds per square foot, which includes 20 pounds per square foot of sand load, applied over the area supported, and in addition, a moving 1000 pound concentrated load shall be applied to produce maximum stress in the main supporting elements. Assumed horizontal loads need not be included in the design of the ventilated containment structure.

The ventilated containment structure shall be supported with either rigid or flexible supports. The rigid or flexible containment materials on the containment structure shall retain air borne particles but may allow air flow through the containment materials. Flexible materials shall be supported and fastened to prevent escape of abrasive and blast materials due to whipping from traffic or wind and to maintain the clearances.

All mating joints between the ventilated containment structure and the bridge shall be sealed. Sealing may be by overlapping of seams when using flexible materials or by using tape, caulking, or other sealing measures.

Multiple flap overlapping door tarps shall be used at entry ways to the ventilated containment structure to prevent dust or debris from escaping.

Baffles, louvers, flapper seals or ducts shall be used at make-up air entry points to the ventilated containment structure to prevent escape of abrasives and resulting surface preparation debris.

The ventilated containment structure shall be properly maintained while work is in progress and shall not be changed from the approved working drawings without prior approval of the Engineer.

The ventilation system in the ventilated containment structure shall be of the forced input air flow type with fans or blowers.

Negative air pressure shall be employed within the ventilated containment structure and will be verified by visual methods by observing the concave nature of the containment materials while taking into account wind effects, or by using smoke or other visible means to observe air flow. The input air flow shall be properly balanced with the exhaust capacity throughout the range of operations.

The exhaust air flow of the ventilation system in the ventilated containment structure shall be forced into dust collectors (wet or dry) or bag houses.

PROTECTIVE WORK CLOTHING AND HYGIENE FACILITIES.—Wherever there is exposure or possible exposure to heavy metals or silica dust at the bridge site, the Contractor shall, for not more than 5 State personnel: (1) furnish, clean and replace protective work clothing and (2) provide access to hygiene facilities. The furnishing, cleaning and replacement of protective work clothing, and hygiene facilities shall conform to the provisions of subsections (g), "Protective work clothing and equipment," and (i), "Hygiene facilities and practices," of Section 1532.1, "Lead," of the Construction Safety Orders.

The protective work clothing and access to hygiene facilities shall be provided during exposure or possible exposure to heavy metals or silica dust at the bridge site and application of the undercoats of paint.

Protective work clothing and hygiene facilities shall be inspected and approved by the Engineer before being used by State personnel.

The protective work clothing shall remain the property of the Contractor at the completion of the contract.

PAYMENT.—Full compensation for the containment system, protective work clothing and access to hygiene facilities for State personnel; handling of debris produced when the existing paint system is disturbed, the existing debris is disturbed by the Contractor's operations, or the existing and produced debris are combined; and the removal of existing debris prior to starting work that may disturb the existing debris; including testing, hauling, treatment, disposal fees and local taxes, shall be considered as included in the contract price paid for the item of work requiring the disposal of the debris and no additional compensation will be allowed therefor.

Work area monitoring will be paid for on the basis of a lump sum price.

The contract lump sum price paid for work area monitoring shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in collecting and analyzing of samples of ambient air and soil for heavy metals, complete in place, including reporting the test results, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.34A PRESTRESSING STRUCTURAL STEEL

Prestressing structural steel shall conform to the provisions in Section 50, "Prestressing Concrete," and Section 55, "Steel Structures," of the Standard Specifications and these special provisions.

The structural steel members shall be prestressed in accordance with the details shown on the plans. The force in the structural steel member shall not be less than the value shown on the plans.

The Contractor shall submit to the Engineer working drawings describing the methods and procedures, including sequences of operations, to be used to prestress the structural steel members. Submittals shall include size and descriptions of equipment for applying forces and monitoring the forces applied to the structural steel members. Details of distributing force reactions to the bridge shall be submitted. Submittals shall be approved before prestressing is started. Submittals shall conform to Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications.

If existing structural steel members are trimmed to provide work room for prestressing equipment, the existing structural steel members shall be repaired after stressing to original size and condition.

At the Contractor's option, the structural steel may be prestress by heating the steel members. The heated zones shall be limited to the center 8 feet of the cover plate for the Pier W1 floor beam and the center 10 feet of the cover plate at Pier W4 floor beam. The structural steel member shall be uniformly heated across the width and thickness of the member.

The heating operation shall be conducted in such a manner that the temperature of the steel does not exceed 1,150° F. as measured by temperature indicating crayons or other suitable means. The structural steel member shall not be artificially cooled until after naturally cooling to 600° F. The Methods of artificial cooling shall be subject to the approval of the Engineer.

The heating operation shall be completed prior to bolt installation, cleaning or painting of the structural steel members. The members shall be cleaned and coated in conformance with the provisions for cleaning and painting structural steel of these special provisions.

Full compensation for prestressing structural steel as shown on the plans shall be considered as included in the contract price paid per pound for erect structural steel and no separate payment will be allowed therefor.

CONTRACT NO. 04-0435U4
REVISED PER ADDENDUM NO. 3 DATED JULY 30, 1999

ENGINEER'S ESTIMATE
04-0435U4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21	047503	REMOVE RIVET	EA	471,000		
22	047504	MODIFY WATER AND AIR LINE (BRIDGE)	LS	LUMP SUM	LUMP SUM	
23	047505	RETROFIT AND LOWER EXPANSION LOOPS	LS	LUMP SUM	LUMP SUM	
24	047506	REPLACE EXPANSION JOINTS	LS	LUMP SUM	LUMP SUM	
25 (F)	510053	STRUCTURAL CONCRETE, BRIDGE	CY	720		
26	511106	DRILL AND BOND DOWEL	LF	2,960		
27 (S)	047507	CORE CONCRETE AND PRESSURE GROUT	LF	160		
28 (S)	047508	CORE AND BOND DOWEL (EPOXY CARTRIDGE)	EA	890		
29 (S)	047509	VISCOUS DAMPER (TYPE A)	EA	74		
30 (S)	047510	VISCOUS DAMPER (TYPE B)	EA	8		
31 (S)	047511	VISCOUS DAMPER (TYPE C)	EA	18		
32 (S)	518050	PTFE BEARING	EA	2		
33	047622	PTFE SPHERICAL BEARING	EA	2		
34 (S-F)	520102	BAR REINFORCING STEEL (BRIDGE)	LB	83,500		
35 (S-F)	520110	BAR REINFORCING STEEL (EPOXY COATED) (BRIDGE)	LB	41,200		
36 (S)	047512	WIRE CABLE WRAPPING	LF	27		
37 (S)	047513	CABLE BAND	EA	16		
38 (F)	550203	FURNISH STRUCTURAL STEEL (BRIDGE)	LB	17,530,000		
39 (F)	550204	ERECT STRUCTURAL STEEL (BRIDGE)	LB	17,530,000		
40 (S)	590115	CLEAN AND PAINT STRUCTURAL STEEL	LS	LUMP SUM	LUMP SUM	

REVISED PER ADDENDUM NO. 3 DATED JULY 30, 1999

ENGINEER'S ESTIMATE

04-0435U4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61 (S)	015032	MODIFICATION FROM DAMPER WORK AT SFA AND YBIA	LS	LUMP SUM	LUMP SUM	
62 (S)	015033	UTILITY PLATFORMS, CAMERA AND OLD CALL BOX SYSTEM MODIFICATIONS	LS	LUMP SUM	LUMP SUM	
63 (S)	015034	UPPER DECK LIGHTING FOUNDATION MODIFICATIONS	LS	LUMP SUM	LUMP SUM	
64 (S)	015035	LIGHTED SIGN, CONTINUOUS SPAN CHORD WORK , RTU FEEDER, TRUSS VERTICALS MODIFICATIONS	LS	LUMP SUM	LUMP SUM	
65 (S)	015036	MODIFICATION FROM UPPER CHORD WORK	LS	LUMP SUM	LUMP SUM	
66 (S)	015037	SPARES	LS	LUMP SUM	LUMP SUM	
67 (S)	015038	SOUTH PIER W-4 MODIFICATION	LS	LUMP SUM	LUMP SUM	
68 (S)	015039	NORTH PIER W-4 MODIFICATION	LS	LUMP SUM	LUMP SUM	
69 (S)	015040	15KV MODIFICATION	LS	LUMP SUM	LUMP SUM	
70 (S)	869072	SEISMIC MONITORING SYSTEM	LS	LUMP SUM	LUMP SUM	
71 (S)	047514	INSTALL SEISMIC MONITORING CASING	LF	175		
72 (S)	047515	INSTALL ELECTRICAL CONDUIT	LS	LUMP SUM	LUMP SUM	
73	862050	REPLACE LUMINAIRE	EA	24		
74	012019	REMOVE ELECTROLIER	EA	24		
75 (S-F)	550101	STRUCTURAL STEEL	LB	8000		
76	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID: _____

REVISED PER ADDENDUM NO. 3 DATED JULY 30, 1999